

CR 84-145

STATE OF WISCONSIN )  
 ) SS.  
DEPARTMENT OF AGRICULTURE, )  
TRADE & CONSUMER PROTECTION )

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Norman E. Kirschbaum, Administrator, Food Division, State of Wisconsin Department of Agriculture, Trade and Consumer Protection, and custodian of the official records of said Division, do hereby certify that the annexed order amending rules relating to butter grading and labeling, Chapter Ag 85, Wis. Adm. Code, was duly approved and adopted by the Department on December 4, 1984.

I further certify that said copy has been compared by me with the original on file in the department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Department offices, in the city of Madison, this 4<sup>th</sup> day of December, 1984.

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Revisor of Statutes  
Bureau

Norman E. Kirschbaum  
Norman E. Kirschbaum  
Administrator  
Food Division

2-1-85

ORDER OF THE  
STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION  
ADOPTING, AMENDING OR REPEALING RULES

1           To repeal and recreate Ag 85.01 through Ag 85.05, and to  
2 amend Ag 85.06 and 85.07, relating to butter grading and  
3 labeling.

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Analysis Prepared by the  
Wisconsin Department of Agriculture, Trade  
and Consumer Protection

The department's amendments to Ch. Ag 85, Wis. Adm. Code, relating to butter grading and labeling bring Wisconsin grade standards more closely in line with U.S. Department of Agriculture grading standards. Portions of the current rule are repealed and recreated to set forth flavor classifications; body, color and salt characteristics; degrees of intensity of characteristics used in grading butter; and rating tables used for grading purposes. These changes make Chapter Ag 85 more compatible with federal grading standards. Other changes include a requirement for marking all consumer packages of butter with the grade of butter contained in the package and an updating of the statutory references relating to butter grader licensing requirements.

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4           Pursuant to authority vested in the Wisconsin department of  
5 agriculture, trade and consumer protection by ss. 93.07(1),  
6 97.09(1), and 97.176(4), Stats., the department adopts rules  
7 interpreting s. 97.176, Stats., as follows:

8           SECTION 1. Ag 85.01 through 85.05 are repealed and  
9 recreated to read:

10          Ag 85.01 DEFINITIONS. As used in this chapter:

11          (1) "Department" means the Wisconsin department of  
12 agriculture, trade and consumer protection.

1 (2) "Body characteristic" means one of the physical attri-  
2 butes related to the texture of a sample of butter, as set forth  
3 under s. Ag 85.04(1)(b).

4 (3) "Butter" means the dairy product defined in  
5 s. 97.01(12), Stats.

6 (4) "Color characteristic" means one of the attributes  
7 related to the quality of coloration in a sample of butter, as set  
8 forth under s. Ag 85.04(1)(c).

9 \* (5) "Cream" means the liquid milk product high in fat sepa-  
10 rated from milk which, after adjustment by adding milk, concen-  
11 trated milk, dry whole milk, skim milk, concentrated skim milk, or  
12 nonfat dry milk, contains not less than 18 percent milkfat.

13 (6) "Flavor characteristic" means one of the attributes  
14 organoleptically determined by taste and smell and ascribed to a  
15 sample of butter for grading purposes, as set forth under  
16 s. Ag 85.04(1)(a).

17 (7) "Grade" means the quality grade or score of a sample of  
18 butter as defined in s. 97.176(3), Stats.

19 (8) "Intensity," as applied to a flavor, body, color or salt  
20 characteristic of butter, means the degree to which the character-  
21 istic is present in a sample of butter, as provided under  
22 s. Ag.85.04(2).

23 (9) "Milk" means the dairy product defined in  
24 s. 97.01(13), Stats.

25 (10) "Salt characteristic" means one of the attributes  
26 related to the saltiness of a sample of butter, as set forth under  
27 s. Ag 85.04(1)(d).

1           Ag 85.02   PROCEDURE FOR DETERMINING WISCONSIN BUTTER  
2   GRADES.

3           The Wisconsin grade of butter shall be determined on the  
4 basis of a representative butter sample, tested and rated  
5 according to the following sequential steps:

6           (1) Each applicable flavor characteristic of the sample  
7 shall be identified under s. Ag 85.04(1)(a), and the relative  
8 intensity of the characteristic shall be determined under  
9 s. Ag 85.04(2). A preliminary letter grade designation is given  
10 to the butter sample on the basis of the sample's flavor charac-  
11 teristic and intensity, using the table under s. Ag 85.05(1). When  
12 more than one flavor characteristic is discernible in a sample of  
13 butter, the flavor classification of the sample shall be estab-  
14 lished on the basis of the flavor that carries the lowest grade.

15           (2) Each applicable body, color and salt characteristic of  
16 the sample shall be identified under s. Ag 85.04(1)(b), (c) and  
17 (d), and the intensity of the characteristics shall be determined  
18 under s. Ag 85.04(2). Based on body, color and salt character-  
19 istics, and the intensity of the characteristics, the sample shall  
20 be given any requisite disratings, using the table under  
21 s. Ag 85.05(2).

22           (3) The final Wisconsin butter grade for the sample shall be  
23 established on the basis of the flavor classification, subject to  
24 disratings for body, color and salt characteristics, using the  
25 tables under s. Ag 85.05(2), (3) and (4). When disratings for  
26 body, color and salt characteristics exceed the allowable amount  
27 for any flavor classification, the final Wisconsin grade shall be

1 lowered accordingly. Final Wisconsin butter grades shall meet the  
2 specifications set forth under s. Ag 85.03.

3 Ag 85.03 SPECIFICATIONS FOR WISCONSIN BUTTER GRADES. Speci-  
4 fications for final Wisconsin grades of butter are set forth in  
5 this section. Compliance with grade specifications is determined  
6 according to the procedure set forth under s. Ag 85.02. The  
7 flavor, body, color and salt characteristics specified or allowed  
8 for butter grades under this section have the meanings set forth  
9 in s. Ag 85.04(1). The degrees of intensity for a specified or  
10 allowed butter characteristic under this section are set forth in  
11 s. Ag 85.04(2).

12 (1) Wisconsin Grade AA butter conforms to the following:

13 (a) It shall possess a fine and highly pleasing butter  
14 flavor.

15 (b) It may possess a feed or culture flavor to a slight  
16 degree or cooked flavor to a definite degree, or  
17 any combination of these characteristics.

18 (c) It shall be made from sweet cream of low natural  
19 acid to which a starter culture may or may not have  
20 been added.

21 (d) The total allowable disratings in body, color and  
22 salt characteristics are limited to one-half  
23 (1/2).

24 (2) Wisconsin Grade A butter conforms to the following:

25 (a) It shall possess a pleasing and desirable butter  
26 flavor.

27 (b) It may possess any of the following flavors to a

1           slight degree: acid, aged, bitter, coarse, flat,  
2           smothered and storage.

3           (c) It may possess a culture flavor and feed flavor to  
4           a definite degree.

5           (d) The total allowable disratings in body, color and  
6           salt characteristics are limited to one-half (1/2),  
7           except when the flavor classification is AA, a  
8           disrating total of one (1) is permitted.

9           \* (3) Wisconsin Grade B butter conforms to the following:

10           (a) It shall possess a fairly pleasing butter flavor.

11           (b) It may possess any of the following flavors to a  
12           slight degree: malty, musty, neutralizer,  
13           scorched, utensil, weed and whey.

14           (c) It may possess any of the following flavors to a  
15           definite degree: acid, aged, bitter, coarse, flat,  
16           smothered, storage and old cream.

17           (d) It may possess culture and feed flavors to a pro-  
18           nounced degree.

19           (e) The total allowable disratings in body, color and  
20           salt characteristics are limited to one-half (1/2),  
21           except when the flavor classification is AA, a  
22           disrating total of one and one-half (1-1/2) is  
23           permitted, and when the flavor classification is A,  
24           a disrating total of one (1) is permitted.

25           (4) Butter that fails to meet the requirements for  
26 Wisconsin Grade B shall be identified as Wisconsin Undergrade  
27 Butter.

1           Ag 85.04 BUTTER CHARACTERISTICS; INTENSITY OF CHARACTER-  
2 ISTICS.

3           (1) BUTTER CHARACTERISTICS. (a) Flavor characteristics.

4 For grading purposes, the flavor of a sample of butter shall be  
5 based upon the presence or absence of one or more of the following  
6 characteristics, organoleptically determined by taste and smell:

- 7           1. "Acid" means the butter lacks a delicate flavor or  
8           aroma and is associated with a lactic acid condi-  
9           tion, which is present other than as a result of  
10          the use of a lactic acid producing culture, but  
11          there is no indication of sourness.
- 12          2. "Aged" means the butter is characterized by lack of  
13          freshness.
- 14          3. "Bitter" means the butter has an astringent effect,  
15          similar to the taste of quinine, and produces a  
16          puckery sensation.
- 17          4. "Coarse" means the butter lacks a fine, delicate,  
18          smooth flavor.
- 19          5. "Cooked" means a smooth, nutty-like character resem-  
20          bling a custard flavor.
- 21          6. "Culture" means a slightly acid aromatic flavor,  
22          characteristic of a lactic acid producing culture.
- 23          7. "Feed" means an aromatic flavor characteristic of  
24          the feeds eaten by cows.
- 25          8. "Flat" means the absence or lack of a natural butter  
26          flavor.
- 27          9. "Malty" means a distinctive, harsh flavor sugges-

- 1                   tive of malt.
- 2                   10. "Musty" means a flavor which is suggestive of the
- 3                   aroma of a damp vegetable cellar.
- 4                   11. "Neutralizer" means a flavor suggestive of bicar-
- 5                   bonate of soda or the flavor of similar alkaline
- 6                   compounds.
- 7                   12. "Old Cream" means a flavor of aged cream character-
- 8                   ized by lack of freshness, and which imparts a
- 9                   rough aftertaste on the tongue.
- 10                  13. "Scorched" means an intensified flavor more distinct
- 11                  than "coarse", and which imparts a harsh aftertaste
- 12                  suggestive of excessive heating.
- 13                  14. "Smothered" means a bland flavor suggestive of
- 14                  improperly cooling the cream prior to churning.
- 15                  15. "Storage" means a flavor characterized by lack of
- 16                  freshness and more intensified than "aged" flavor.
- 17                  16. "Utensil" means a flavor suggestive of unclean
- 18                  utensils and equipment.
- 19                  17. "Weed" means an aromatic flavor characteristic of
- 20                  the weeds eaten by cows.
- 21                  18. "Whey" means a flavor or aroma characteristic of the
- 22                  acid development of cheese whey.

23                  (b) Body characteristics. For grading purposes, the

24                  body characteristics of a sample of butter shall be based upon the

25                  presence or absence of one or more of the following physical

26                  attributes related to the texture of the butter:

- 27                  1. "Crumbly" means the butter particles lack cohesion,



1           have a tendency to break easily and lack plas-  
2           ticity.

- 3           2. "Gummy" means the butter does not melt readily and  
4           tends to be adhesive or gumlike.
- 5           3. "Leaky" means beads of moisture appear on cut  
6           surfaces of the butter.
- 7           4. "Mealy" or "grainy" means a condition which imparts  
8           a granular consistency that may be characterized  
9           as sandy when the butter is melted on the tongue.
- 10          5. "Ragged-boring" means a sticky-crumbly condition  
11          evidenced by the fact that a full sampling trier of  
12          butter cannot be drawn.
- 13          6. "Short" means a short-grained texture, lacking in  
14          plasticity, and tending toward brittleness, but not  
15          to the extent of being "crumbly."
- 16          7. "Sticky" means possessing excessive adhesiveness  
17          and tending to be smeary.
- 18          8. "Weak" means a body texture that lacks firmness and  
19          tends to be spongy.

20          (c) Color characteristics. For grading purposes, the  
21          color characteristics of a sample of butter shall be based upon  
22          the presence or absence of one or more of the following attributes  
23          related to the butter's coloration:

- 24          1. "Mottled" means a dappled condition with spots of  
25          lighter and deeper shades of yellow.
- 26          2. "Speckled" means the presence of small white or  
27          dark yellow particles of variable number and size.

1           3. "Streaked" means the coloration appears as light  
2           colored portions surrounded by more highly colored  
3           portions.

4           4. "Wavy" means an unevenness in the color that appears  
5           as waves of different shades of yellow.

6           (d) Salt characteristics. For grading purposes, the  
7 salt characteristics of a sample of butter shall be based upon the  
8 presence or absence of one of the following attributes related to  
9 the saltiness of the butter:

10           1. "Sharp" means the butter is characterized by taste  
11           sensations suggestive of salt.

12           2. "Gritty" means the butter is characterized by a  
13           sandlike feel of grains of undissolved salt on the  
14           tongue or between the teeth when the butter is  
15           chewed.

16           (2) INTENSITY. A butter characteristic under sub. (1) may  
17 be present with one of the following degrees of intensity:

18           (a) "Slight" means an attribute is barely identifiable  
19           and present only to a small degree.

20           (b) "Definite" means an attribute is readily identi-  
21           fiable and present to a moderate degree.

22           (c) "Pronounced" means an attribute is markedly identi-  
23           fiable and present to a substantial degree.

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1 Ag 85.05 WISCONSIN BUTTER GRADES; CLASSIFICATION AND  
 2 DISRATING TABLES.

3 (1) Table I. Classification of Flavor Characteristics.

4	5	6	Flavor Classification by Wisconsin Grade			
			AA	A	B	Undergrade
7	Acid	--	s	d	p	
8	Aged	--	s	d	p	
9	Bitter	--	s	d	p	
10	Coarse	--	s	d	p	
11	Cooked	d	--	--	--	
12	Culture	s	d	p	--	
13	Feed	s	d	p	--	
14	Flat	--	s	d	p	
15	Malty	--	--	s	d	
16	Musty	--	--	s	d	
17	Neutralizer	--	--	s	d	
18	Old Cream	--	--	d	p	
19	Scorched	--	--	s	d	
20	Smothered	--	s	d	p	
21	Storage	--	s	d	p	
22	Utensil	--	--	s	d	
23	Weed	--	--	s	d	
24	Whey	--	--	s	d	

25  
 26 s=slight, d=definite and p=pronounced intensity.

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(2) Table II. Characteristics and Disratings In Body, Color  
and Salt.

Characteristic	Disratings		
	Slight	Definite	Pronounced
<u>Body</u>			
Crumbly	1/2	1	1-1/2 - 2
Gummy	1/2	1	1-1/2 - 2
Leaky	1/2	1	2
Mealy or Grainy	1/2	1	1-1/2 - 2
Ragged-boring	1	2	2-1/2 - 3
Short	1/2	1	1-1/2 - 2
Sticky	1/2	1	1-1/2 - 2
Weak	1/2	1	1-1/2 - 2
<u>Color</u>			
Mottled	1	2	2-1/2 - 3
Speckled	1	2	2-1/2 - 3
Streaked	1	2	2-1/2 - 3
Wavy	1/2	1	1-1/2 - 2
<u>Salt</u>			
Gritty	1	2	2-1/2 - 3
Sharp	1/2	1	1-1/2 - 2

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1 (3) Table III. Relation of Final Wisconsin  
 2 Butter Grade to Preliminary Flavor Classification as Affected by  
 3 Total Disrating.

4	5	6	7
	Preliminary Flavor Classification	Total Disrating	Final Wisconsin Grade
6	Grade AA	1/2	AA
7	Grade AA	1	A
8	Grade AA	1-1/2	B
9	Grade AA	2 or greater	Undergrade
10	Grade A	1/2	A
11	Grade A	1	B
12	Grade A	1-1/2 or greater	Undergrade
13	Grade B	1/2	B
14	Undergrade	1/2 or greater	Undergrade

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1 (4) Table IV. Examples of the Relation of Wisconsin Butter  
 2 Grade to Flavor Classification and Total Disratings in Body, Color  
 3 and Salt Characteristics.

Flavor Classi- fication	Disratings			Total Disratings	Permitted Total Disratings	Disratings In Excess of Total Permitted	Wis. Grade
	Body	Color	Salt				
7 AA	1/2	0	0	1/2	1/2	0	AA
8 AA	1/2	1/2	0	1	1/2	1/2	A
9 AA	0	1	0	1	1/2	1/2	A
10 AA	1/2	1	0	1-1/2	1/2	1	B
11 A	1/2	0	0	1/2	1/2	0	A
12 A	0	1/2	1/2	1	1/2	1/2	B
13 A	0	1	0	1	1/2	1/2	B
14 A	1/2	1/2	1/2	1/2	1/2	1	Undergrade
15 B	1/2	0	0	1/2	1/2	0	B
16 B	1/2	1/2	0	1	1/2	1/2	Undergrade

17 SECTION 2. Ag 85.06(4) is amended to read:

18 Ag 85.06(4). CODING OF PACKAGES. Persons packaging butter  
 19 shall mark or code each consumer package or bulk container  
 20 ~~of consumer packages~~ of butter and shall keep records from which  
 21 the department can determine the name of the grader certifying the  
 22 grade and the date of printing or churning.

23 SECTION 3. Ag 85.07 is amended to read:

24 Ag 85.07. LICENSING OF GRADERS. No person shall certify or  
 25 attempt to certify that any butter conforms to a grade or the  
 26 specifications therefor established under these regulations  
 27 without a license from the department. Licenses to certify the

1 grade of butter shall be issued as provided in s. ~~93.11~~ 97.175,  
 2 Stats. The provisions of ~~s. 93.11~~ s. 93.06(7), Stats.,  
 3 governing revocation or suspension of licenses, and the conduct of  
 4 licensees shall be applicable to persons licensed to certify the  
 5 grade of butter. Application for license shall be in writing on a  
 6 form furnished by the department, naming the location where the  
 7 grading is to be done. Unless written approval is granted by the  
 8 department, no licensee shall grade butter at a location other  
 9 than one authorized ~~by him~~ on the license.

10 SECTION 4. The rules contained in this order shall take  
 11 effect on the first day of the month following publication in the  
 12 Wisconsin Administrative register, as provided in  
 13 s. 227.026(1)(intro.), Stats.

14 Dated this 4<sup>th</sup> day of December, 1984.

15 STATE OF WISCONSIN  
 16 DEPARTMENT OF AGRICULTURE,  
 17 TRADE AND CONSUMER PROTECTION

18  
 19 By Norman E. Kirschbaum  
 20 Norman E. Kirschbaum, Administrator  
 21 Food Division

22 NEK/m/T1/LEG/FOOD/Ag 85  
 23 12/4/84-7  
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